

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

5 Appellant(s): Lawrence A. Rigge
Case: Rigge 7
Serial No.: 10/672,656
Filing Date: September 26, 2003
Group: 2617
10 Examiner: Kiet M. Doan

Title: Method and System for Wireless Communication With an Integrated Circuit Under Evaluation

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APPEAL BRIEF

20 Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

25 Sir:

Appellant hereby appeals the final rejection, dated June 9, 2009 of Claims 1, 2, 4-7, 11-14, 16-19 and 23-25 of the above-identified patent application.

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REAL PARTY IN INTEREST

The present application is assigned to Agere Systems Inc., as evidenced by an assignment recorded on September 26, 2003 in the United States Patent and Trademark Office at Reel 014553, Frame 0640. The assignee, Agere Systems Inc., is the real party in interest.

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RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

STATUS OF CLAIMS

The present application was filed on September 26, 2003 with claims 1 through 25.
40 Claims 1, 2, 4-7, 11-14, 16-19 and 23-25 are presently pending in the above-identified patent

application. Claims 1, 2, 4, 12-14, 16 and 24-25 are rejected under 35 U.S.C. §103(a) as being unpatentable over King et al. (United States Patent No. 7,050,017) in view of Gass (United States Publication No. 2004/0123193, Claims 5-7 and 17-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over King et al. in view of Gass and further view of Welch (United States Publication No. 5 2004/0097246), and claims 11 and 23 are rejected under 35 U.S.C. §103(a) as being unpatentable over King et al. in view of Gass and further view of Schmidt (United States Publication No. 2002/0196029).

Claims 1, 11-13 and 23-25 are being appealed.

STATUS OF AMENDMENTS

10 No amendments have been filed subsequent to the final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1 requires a method for wireless communication between an integrated circuit device (FIG. 1; 110) and a monitoring station (FIG. 1; 150) (Page 3, lines 18-28), said 15 method comprising the steps of: transmitting a wireless signal from said integrated circuit device to said monitoring station (Page 3, lines 22-28) using an antenna (FIG. 1; 120-1, page 3, lines 23-25) associated with said integrated circuit device (FIG. 1; 110), wherein said antenna (FIG. 1; 120-1) is a pin (page 3, lines 24-25) on said integrated circuit device (FIG. 1; 110), and wherein said monitoring station (FIG. 1; 150) performs one or more of testing (page 3, line 21), debugging (page 5, line 17) and evaluating (page 20 3, line 17) said integrated circuit (FIG. 1; 110).

Independent claim 13 requires an integrated circuit device (FIG. 1; 110), comprising: at least one circuit (FIG. 2, 230, 240, 250, 260; page 4, line 23, to page 5, line 9); and an antenna (FIG. 1; 120-1, page 3, lines 23-25) for wireless communication with an external monitoring station (FIG. 1; 150), wherein said antenna (FIG. 1; 120-1, page 3, lines 23-25) is a pin (page 3, lines 24-25) on said 25 integrated circuit device (FIG. 1; 110), and wherein said monitoring station (FIG. 1; 150) performs one or more of testing (page 3, line 21), debugging (page 5, line 17) and evaluating (page 3, line 17) said integrated circuit (FIG. 1; 110).

Independent claim 25 requires a method for wireless communication between an integrated circuit device (FIG. 1; 110) and a monitoring station (FIG. 1; 150) (Page 3, lines 18-28), said 30 method comprising the steps of: transmitting a wireless signal to said monitoring station (FIG. 1; 150)

from said integrated circuit device (FIG. 1; 110) (Page 3, lines 22-28) using an antenna (FIG. 1; 120-1, page 3, lines 23-25) associated with said integrated circuit device (FIG. 1; 110), wherein said antenna (FIG. 1; 120-1) is a pin (page 3, lines 24-25) on said integrated circuit device (FIG. 1; 110), and wherein said monitoring station (FIG. 1; 150) performs one or more of testing (page 3, line 21), debugging (page 5, line 17) and evaluating (page 3, line 17) said integrated circuit (FIG. 1; 110).

Dependent claim 11 requires that the signal is a test command (Page 3, lines 25-27).

Dependent claim 12 requires that the signal is a memory pattern to be applied to a memory area on said integrated circuit device (page 5, lines 16-21).

Dependent claim 23 requires that the signal is a test command (Page 3, lines 25-27).

10 Dependent claim 24 requires that the signal is a memory pattern to be applied to a memory area on said integrated circuit device (page 5, lines 16-21).

STATEMENT OF GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1, 11-13 and 23-25 are being appealed. Appealed claims 1, 12-13 and 24-25 are rejected under 35 U.S.C. §103(a) as being unpatentable over King et al. in view of Gass. Appealed claims 11 and 23 are rejected under 35 U.S.C. §103(a) as being unpatentable over King et al. in view of Gass and further view of Schmidt

ARGUMENT

20 Independent Claims

Independent claims 1, 13, and 25 were rejected 35 U.S.C. §103(a) as being unpatentable over King et al. in view of Gass. With regard to claim 1, for example, the Examiner asserts that King et al. teach transmitting a wireless signal from said integrated circuit device to said monitoring station using an antenna associated with said integrated circuit device, wherein said antenna is a pin on said integrated circuit device. (citing col. 1, lines 56-62; col. 3, lines 18-23 and 31-39; col. 5, lines 51-65 and FIG. 1).

Contrary to the Examiner's assertion, however, King et al. do not disclose or suggest "wherein said antenna is a pin on said integrated circuit device." Rather, King et al. expressly teach using an antenna that is *external* from the integrated RFID circuit. In col. 1, lines 52-53 and 61-62, it is expressly stated that at least one pin is an antenna pin for connection to an *external* antenna (conductive

belt in tire). In other words, the RFID pin is merely a *connector* to an external antenna. See also, col. 3, line 22.

In the Response to Arguments section of the Final Rejection, the Examiner asserts that King et al. teach, at col. 5, lines 61-62, that “at least one pin is an antenna pin for connection to an external antenna.” A pin that is “an antenna pin *for connection to an external* antenna,” however, does not disclose or suggest that “said *antenna is a pin* on said integrated circuit device, as required by the independent claims.

The Examiner acknowledges that King et al. do not teach “monitoring station performs one or more of testing, debugging and evaluating said integrated circuit,” but asserts that Gass teaches this feature.

Appellant notes that Gass *teaches away* from wireless communications between an integrated circuit device and a monitoring station that is debugging the integrated circuit. First, Gass does not address any type of communication between an *integrated circuit* device being tested and a monitoring station. Rather, Gass is directed to communications between a host device and a target device. While the host device may be a test/debug device, there is no disclosure that the target device is an integrated circuit. In any event, Gass specifically shows *wired* connections between the between a host device and a target device. See, e.g., FIG. 1.

This “teaching away” argument has not been addressed by the Examiner.

As stated in the Abstract, Gass teaches an enhanced parallel port JTAG interface (IEEE 20 Test Access Port). The enhanced JTAG *cable* is connectable between an Enhanced Parallel Port (EPP) and a JTAG port and has increased performance over using a Standard Parallel Port (SPP). The use of the JTAG *cable* by Gass *teaches away* from *wireless* communications between an integrated circuit device and a monitoring station that is debugging the integrated circuit.

KSR Considerations

As indicated above, there is no teaching of the antenna being a pin on the integrated circuit device. Thus, even as combined in the manner suggested by the Examiner, King et al. and Gass *do not teach every element of the independent claims*. Furthermore, based on the KSR considerations discussed hereinafter, the combination/modification suggested by the Examiner is not appropriate. Other than to allege that the improvement of wireless short range operation, the Examiner has failed to establish “an apparent reason to combine … known elements.” *KSR International Co. v. Teleflex Inc.*

(*KSR*), 550 U.S. ___, 82 USPQ2d 1385 (2007). Appellant queries how an alleged “improvement of wireless short range operation” suggests wireless communications between an integrated circuit device and a monitoring station that is debugging the integrated circuit. The examiner has not identified any portion of King et al. or Gass that actually teaches “improvement of wireless short range operation” or 5 that would otherwise suggest a combination in the manner suggested by the present invention. The Examiner has not met the burden of proof under *KSR*.

There is no suggestion in King et al. or in Gass, alone or in combination, to employ wireless communications between an integrated circuit device and a monitoring station that is debugging the integrated circuit.

10 As asserted above, Gass’ use of a *hard-wired* cable *teaches away* from the present invention. The *KSR* Court discussed in some detail *United States v. Adams*, 383 U.S. 39 (1966), stating in part that in that case, “[t]he Court relied upon the corollary principle that when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious.” (*KSR* Opinion at p. 12). Thus, there is no reason to make the asserted 15 combination/modification.

Thus, a person of ordinary skill in the art would not combine King et al. and Gass in the manner asserted by the Examiner.

Further, Appellant suggests that this *seventh* rejection that fails to establish a *prima facie* case of obviousness is itself evidence of the non-obviousness of the present invention.

20 Thus, Appellant respectfully requests withdrawal of the Section 103 rejection of the independent claims.

Dependent Claims

Dependent claims 2, 4-12 and 14-15 were rejected under 35 U.S.C. §103(a) as being unpatentable over various combinations of King et al., Gass, Welch and Schmidt. Claims 2, 4-12 and 25 14-15 are dependent on claims 1 and 13, respectively, and are therefore patentably distinguished over King et al., Gass, Welch and Schmidt, alone or in any combination, because of their dependency from amended independent claims 1 and 13 for the reasons set forth above, as well as other elements these claims add in combination to their base claim.

Dependent Claims 11-12 and 23-24 are being appealed.

In rejecting claims 11 and 23, the Examiner acknowledges in the Office Action that King and Gass do not disclose that the signal is a test command. The Applicant merely cites Schmidt for this purpose, but does not establish any motivation for combining King et al., Gass, and Schmidt, other than to "enable communications." Appellant submits that wirelessly transmitting a test pattern using an antenna that is a pin on the integrated circuit device is not disclosed or suggested by the combination of King et al., Gass, and Schmidt.

In rejecting claims 12 and 24, the Examiner recites in the Office Action that King teaches that the signal is a memory pattern to be applied to a memory area. Citing Col. 3, lines 55-60. King, however, does not disclose or suggest wirelessly transmitting a memory pattern to be applied to a memory area on said integrated circuit device using an antenna that is a pin on the integrated circuit

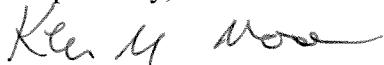
Conclusion

All of the pending claims, i.e., claims 1, 2, 4-7, 11-14, 16-19 and 23-25, are in condition for allowance and such favorable action is earnestly solicited.

If any outstanding issues remain, or if the Examiner or the Appeal Board has any further suggestions for expediting allowance of this application, the Examiner and the Appeal Board are invited to contact the undersigned at the telephone number indicated below.

The attention of the Examiner and the Appeal Board to this matter is appreciated.

Respectfully,



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20 Date: August 31, 2009

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APPENDIX

1. A method for wireless communication between an integrated circuit device and a
5 monitoring station, said method comprising the steps of:

transmitting a wireless signal from said integrated circuit device to said monitoring station using an antenna associated with said integrated circuit device, wherein said antenna is a pin on said integrated circuit device, and wherein said monitoring station performs one or more of testing, debugging and evaluating said integrated circuit.

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2. The method of claim 1, wherein said antenna is incorporated in said integrated circuit device.

3. (Cancelled)

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4. The method of claim 2, wherein at antenna is printed on said integrated circuit device.

5. The method of claim 1, wherein said signal is transmitted in accordance with an 802.11 wireless standard.

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6. The method of claim 1, wherein said signal is transmitted in accordance with an ultra wide band wireless standard.

7. The method of claim 1, wherein said signal is transmitted in accordance with a Bluetooth standard.

8. (Cancelled).

9. (Cancelled).

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10. (Cancelled).

11. The method of claim 1, wherein said signal is a test command.
12. The method of claim 1, wherein said signal is a memory pattern to be applied to a
5 memory area on said integrated circuit device.
13. An integrated circuit device, comprising:
at least one circuit; and
an antenna for wireless communication with an external monitoring station, wherein said
10 antenna is a pin on said integrated circuit device, and wherein said monitoring station performs one or
more of testing, debugging and evaluating said integrated circuit.
14. The integrated circuit device of claim 13, wherein said antenna is incorporated in said
integrated circuit device.
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15. (Cancelled).
16. The integrated circuit device of claim 14, wherein at antenna is printed on said integrated
circuit device.
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17. The integrated circuit device of claim 13, wherein said signal is transmitted in
accordance with an 802.11 wireless standard.
18. The integrated circuit device of claim 13, wherein said signal is transmitted in
25 accordance with an ultra wide band wireless standard.
19. The integrated circuit device of claim 13, wherein said signal is transmitted in
accordance with a Bluetooth standard.
- 30 20. (Cancelled).

21. (Cancelled).

22. (Cancelled).

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23. The integrated circuit device of claim 13, wherein said signal is a test command.

24. The integrated circuit device of claim 13, wherein said signal is a memory pattern to be applied to a memory area on said integrated circuit device.

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25. A method for wireless communication between an integrated circuit device and a monitoring station, said method comprising the steps of:

transmitting a wireless signal to said monitoring station from said integrated circuit device using an antenna associated with said integrated circuit device, wherein said antenna is a pin on said integrated circuit device, and wherein said monitoring station performs one or more of testing, 15 debugging and evaluating said integrated circuit.

EVIDENCE APPENDIX

There is no evidence submitted pursuant to § 1.130, 1.131, or 1.132 or entered by the Examiner and relied upon by appellant.

RELATED PROCEEDINGS APPENDIX

There are no known decisions rendered by a court or the Board in any proceeding identified pursuant to paragraph (c)(1)(ii) of 37 CFR 41.37.